F. CONRAD.

PLUG CONNECTOR.

APPLICATION FILED JUNE 11, 1915.

1,175,343.

Patented Mar. 14, 1916.

Fig. 1.

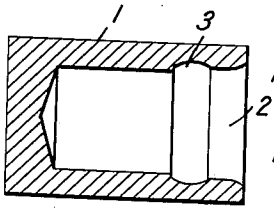


Fig. 2.

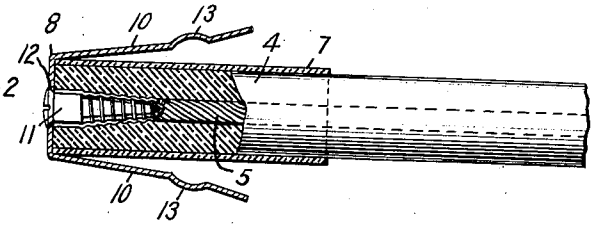
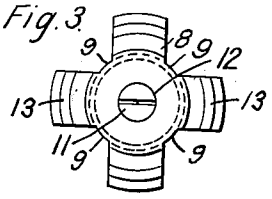


Fig. 3.



WITNESSES:

Fred H. Miller

J. H. Procter

INVENTOR

Frank Conrad

BY

Wesley G. Carr

ATTORNEY

UNITED STATES PATENT OFFICE.

FRANK CONRAD, OF SWISSVALE, PENNSYLVANIA, ASSIGNOR TO WESTINGHOUSE ELECTRIC AND MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

PLUG-CONNECTOR.

1,175,343. Specification of Letters Patent. Patented Mar. 14, 1916.

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To all whom it may concern:

Be it known that I, FRANK CONRAD, a citizen of the United States, and a resident of Swissvale, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Plug-Connectors, of which the following is a specification.

My invention relates to plug connectors and particularly to connectors that permit a relative rotative movement between the parts thereof.

The object of my invention is to provide a simple and cheaply constructed plug connector that will permit twisting the conductors connected thereto without disconnecting the members constituting the connector.

In the accompanying drawings, Figure 1 is a sectional view of a socket constituting one portion of a plug connector embodying my invention; Fig. 2 is a side view, partially in elevation and partially in section, of a plug member that coöperates with the socket shown in Fig. 1 and Fig. 3 is an end elevational view of the plug member shown in Fig. 2.

A conducting member 1 of any desired shape is provided with a substantially cylindrical opening 2 having an annular groove 3 therein. The opening 2 in the socket member 1 is for the purpose of receiving a plug member 4, and the annular groove 3 is for the purpose of securing the plug member 4 and the conducting socket member 1 in operative engagement. The socket member 1 may be permanently connected to any electrical apparatus or it may constitute the terminal of a conductor. The plug member 4 comprises an insulated flexible stranded conductor 5, a non-flexible insulating sleeve 7 composed of micarta paper or any other similar material and a conducting member 8. The conducting member 8 is cylindrical in shape but has portions cut away, as indicated at 9, to provide a plurality of resilient arms 10. The arms 10 are disposed around the sleeve 7 and a screw 11 is inserted in an opening 12 in the end of the member 8 and between the various conductors comprising the flexible conductor 5. The screw 11 spreads the conductors apart to thereby secure the sleeve 7 and the member 8 together. The arms 10 of the member 8 are bent outwardly and have ridges 13 therein that are adapted to register with the annular groove 3 when the plug is inserted in the opening 2. Since the arms 10 are resilient, the plug 4 will be retained in position after it is inserted in the opening 2, and the conductor 5 may be turned through any angle without interrupting the connection between the member 1 and the member 4.

While I have shown a specific form of my invention, it is obvious that many modifications may be made in the construction of the same without departing from the spirit and scope of my invention, as set forth in the appended claims.

I claim as my invention:

1. The combination with a socket having an annular groove therein, of a flexible insulated conductor, a non-flexible insulating tube disposed around one end thereof, and resilient contact strips secured to the conductor at its end and adapted to register with the annular groove in the socket.

2. In a connector, the combination with a socket having an annular groove therein, of an insulated stranded conductor, a tube disposed around the conductor at one end thereof, resilient conducting strips connected together at one end and disposed around the tube, said strips being adapted to register with the groove in the socket, and a screw inserted in the end of the stranded conductor for securing the strips thereto.

3. A connector comprising a socket having an annular groove therein, a stranded conductor, an insulating sleeve around one end of the conductor, a plurality of resilient strips disposed across one end of the conductor and around the insulating sleeve and means for securing the strips and the sleeve to the conductor, said strips being adapted to register with the groove in the socket.

4. A connector comprising a socket having an annular groove therein, an insulated stranded conductor, a micarta sleeve tightly disposed around the insulated conductor at one end, a resilient conducting member disposed over one end of the conductor and around the micarta sleeve and a screw for securing the conducting member to the stranded conductor and for securing the sleeve in position, said resilient conducting

member being adapted to register with the groove in the socket to permit rotative movement of the conductor.

5. A plug terminal for an insulated stranded conductor comprising a micarta sleeve disposed around the conductor at one end, a resilient conducting member disposed over one end of the conductor and around the sleeve and a screw projecting through the resilient conducting member into the stranded conductor for securing the same together and for securing the sleeve in position.

In testimony whereof, I have hereunto subscribed my name this 28th day of May 1915.

FRANK CONRAD.